

Application No.: 09/965,374
Amendment Dated: November 4, 2008
Reply to Office Action of: September 15, 2008

IN THE CLAIMS:

Please amend the claims as indicated. A complete set of the claims is included below, reflecting added subject matter (underlining) and deleted subject matter (strikethrough), as well as the current status of each claim. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A computer-implemented method for scheduling tasks, the method comprising the steps of:

~~a) a background task registering at least one registered service, the background task invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the computer operating system comprising the background task and a foreground task, the background task being scheduled independent from the operation of the foreground task, the background task for providing an execution presence and a data presence to each of the at least one registered service;~~
~~— b) the background task ranking the at least one registered service according to requirements of each of the at least one registered service; and~~
~~— c) the background task allocating the execution presence and the data presence accordingly to each of the at least one registered service such that each of the at least one registered service is given an opportunity to be scheduled in the dedicated pre-assigned time slice independently of any foreground task and independently of any predetermined operating system tasks.~~

(a) operating a kernel of a computer operating system to cycle through a plurality of pre-assigned time slices, at least one slice being assigned to a background thread;

(b) scheduling execution of a service manager on the background thread;

(c) operating the service manager to schedule a plurality of registered services for execution, each service being scheduled for execution within at least one of the pre-assigned time slices, where the registered services are scheduled for execution independently of any foreground tasks;

(d) ranking the registered services according to priority and resource need; and

(e) allocating an execution presence and data presence to a registered service.

Application No.: 09/965,374
Amendment Dated: November 4, 2008
Reply to Office Action of: September 15, 2008

2. (Currently Amended) A method as recited in Claim 1 further comprising the step of the ~~background task~~ service manager searching for ~~one or more of the at least one registered service associated therewith~~ at least one service manager service.
3. (Previously Presented) A method as recited in Claim 1 wherein the method is implemented on a portable electronic device.
4. (Currently Amended) A method as recited in Claim 1 wherein the data presence is an ~~AS-based~~ A5-based global variable context.
5. (Currently Amended) A method as recited in Claim 1 wherein ~~[[the]]~~ at least one registered service is a system-related activity.
6. (Currently Amended) A method as recited in Claim 1 wherein ~~[[the]]~~ at least one registered service is an interrupt-related activity.
7. (Currently Amended) A method as recited in Claim 1 wherein ~~[[the]]~~ at least one registered service is a background-related activity.
8. (Currently Amended) A method as recited in Claim 1 further comprising the step of periodically repeating the steps ~~a) through e)~~ (a) through (e).
9. (Previously Presented) A method as recited in Claim 2 further comprising the step of periodically repeating the step of the ~~background task~~ service manager searching for at least one service ~~associated therewith~~ manager service.
10. (Currently Amended) A computer-implemented method for scheduling tasks comprising the steps of:

Application No.: 09/965,374
Amendment Dated: November 4, 2008
Reply to Office Action of: September 15, 2008

a) a background task registering at least one registered service, the task invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the task for providing an execution presence and a data presence to the registered service;

b) the task ranking ~~[[the]]~~ at least one registered service according to ~~[[the]]~~ requirements of the registered service; and

c) the task allocating the execution presence and the data presence accordingly to each of the registered services such that each of the registered services is given an opportunity to be scheduled in the dedicated pre-assigned time slice independently of any foreground task ~~and independently of any predetermined operating system tasks.~~

11. (Currently Amended) A method as recited in Claim 10 further comprising the step of the background task searching for at least one registered service associated therewith.

12. (Previously Presented) A method as recited in Claim 10 wherein the method is implemented on a portable electronic device.

13. (Currently Amended) A method as recited in Claim 10 wherein the data presence is an ~~AS-based~~ A5-based global variable context.

14. (Previously Presented) A method as recited in Claim 10 further comprising the step of periodically repeating the steps a) through c).

15. (Previously Presented) A method as recited in Claim 11 further comprising the step of periodically repeating the step of background task searching for at least one service associated therewith.

16. (Currently Amended) A computer system comprising:
a processor coupled to a bus;

Application No.: 09/965,374
Amendment Dated: November 4, 2008
Reply to Office Action of: September 15, 2008

a memory unit coupled to the bus having stored therein an operating system ~~executed for execution~~ by the processor and a background task ~~executed for execution~~ by the processor; wherein upon execution the background task performs a method comprising the steps of:

a) registering by the background task ~~at least one~~ a plurality of registered ~~service services~~, the background task being invoked by a kernel of a computer operating system in a dedicated pre-assigned time slice, the computer operating system ~~comprising~~ operating the background task and a foreground task, the operation of the background task being independent from the operation of the foreground task, the background task ~~for providing~~ being operated to provide an execution presence and a data presence to a registered service;

b) ranking the registered ~~service services~~ according to ~~the requirements~~ priority and resource needs of ~~[[the]]~~ each registered service; and

c) allocating the execution presence and the data presence accordingly to each of the registered services such that each of the registered services is given an opportunity to be scheduled in the dedicated pre-assigned time slice independently of any foreground task ~~and independently of any predetermined operating system tasks.~~

17. (Currently Amended) A computer system as recited in Claim 16 wherein the background task further performs the step of searching for the ~~at least one~~ registered ~~service services~~ associated with the background task.

18. (Previously Presented) A computer system as recited in Claim 16 wherein the computer system is a portable electronic device.

19. (Currently Amended) A computer system as recited in Claim 16 wherein the data presence is an ~~AS-based~~ A5-based global variable context.

20. (Currently Amended) A computer system as recited in Claim 16 wherein ~~[[the]]~~ at least one registered service is a system-related activity.

Application No.: 09/965,374
Amendment Dated: November 4, 2008
Reply to Office Action of: September 15, 2008

21. (Currently Amended) A computer system as recited in Claim 16 wherein ~~[[the]]~~ at least one registered service is an interrupt-related activity.

22. (Currently Amended) A computer system as recited in Claim 16 wherein ~~[[the]]~~ at least one registered service is a background-related activity.

23. (Currently Amended) A computer-implemented method for scheduling tasks, the method comprising:

a) cycling through a set of pre-assigned time slices to schedule a set of tasks comprising ~~[[a]]~~ at least one background task and ~~[[a]]~~ at least one foreground task, each of the tasks assigned to one of the time slices wherein scheduling of the background task is independent from scheduling of the foreground task; and

b) scheduling execution of a service manager operating on a background thread wherein the step b) comprises the ~~[[step]]~~ steps of:

b1) the service manager scheduling a set of ~~services~~ tasks that are registered therewith for execution within ~~its~~ the time slice assigned to each task, wherein the set of registered ~~services~~ tasks is dynamically updated; and

b2) the service manager allocating a data presence and execution presence to each of the ~~set of services~~ background tasks registered therewith independently of said foreground ~~[[task]]~~ tasks ~~and independently of any predetermined operating system tasks.~~

24. (Previously Presented) A method as recited in Claim 23 wherein the method is implemented on a portable electronic device.

25. (Currently Amended) A method as recited in Claim 23 wherein the data presence is an ~~AS-based~~ A5-based global variable context.

26. (Currently Amended) A method for scheduling tasks on a computer system that is executing a ~~number~~ plurality of foreground applications, the method comprising:

Application No.:	09/965,374
Amendment Dated:	November 4, 2008
Reply to Office Action of:	September 15, 2008

a) a kernel of an operating system scheduling a plurality of tasks for execution on the computer system within respective time slices, the plurality of tasks being in a static mode and one of the tasks being a service manager;

b) a plurality of applications dynamically registering with the service manager; and

c) the service manager, when itself executing in its time slice, scheduling for execution the plurality of applications based ~~[[in]]~~ on a priority and resource need of each application, wherein applications are scheduled for execution by the service manager in a manner independent from any of the foreground applications ~~and independent of any predetermined operating system applications.~~

27. (Previously Presented) A method as recited in Claim 26 wherein the plurality of applications comprise a system service, an interrupt service and a background service.

28. (Previously Presented) A method as recited in Claim 26 wherein the computer system is a handheld computer system.

29. (Previously Presented) A method as recited in Claim 26 wherein the step b) comprises the step of the service manager dynamically registering the plurality of applications based on registration information associated therewith.